

## CLAIMS

Therefore, having thus described the invention, at least the following is claimed.

- 1    1.    A toilet bowl cleaner comprising:
  - 2       a surfactant; and
  - 3       an effervescent system including an acid, wherein the effervescent system
  - 4       produces a significant level of foam in a toilet bowl; and
  - 5       wherein the cleaner has a pH from approximately 1.6 to approximately 2.2.
  
- 1    2.    The composition of claim 1, wherein the effervescent system further comprises a  
2       hypochlorite generator.
  
- 1    3.    The composition of claim 1, wherein the acid comprises:
  - 2       sulfamic acid; and
  - 3       sodium bisulfate.
  
- 1    4.    The composition of claim 2, wherein the hypochlorite generator comprises from  
2       approximately 0.1% to approximately 20% by weight of the composition.
  
- 1    5.    The composition of claim 2, wherein the hypochlorite generator is chosen from at  
2       least one of: chlorinated isocyanurates, alkali metal hypochlorites, and alkaline earth  
3       metal hypochlorites.
  
- 1    6.    The composition of claim 4, wherein the chlorinated isocyanurate is  
2       dichloroisocyanurate.

1    7.     The composition of claim 4, wherein the alkali metal hypochlorite is chosen from  
2     at least one of: lithium hypochlorite, magnesium hypochlorite, and calcium hypochlorite.

1    8.     The composition of claim 1, wherein the effervescent system comprises from  
2     approximately 20% to approximately 90% by weight of the composition.

1    9.     The composition of claim 1, wherein the effervescent system further comprises:  
2       an alkali metal carbonate; and  
3       an acid.

1    10.    The composition of claim 9, wherein the alkali metal carbonate is chosen from:  
2       sodium carbonate, sodium bicarbonate, potassium carbonate, and potassium bicarbonate.

1    11.    The composition of claim 9, wherein the acid is chosen from at least one of:  
2       citric; maleic; fumaric; adipic; potassium phosphate; sodium phosphate, monobasic;  
3       oxalic; lactic; sulfamic; tataric; sodium bisulfite; sodium pyrophosphate; and potassium  
4       pyrophosphate.

1    12.    The composition of claim 1, wherein the level of foam is approximately one inch  
2     above a water line in the toilet bowl.

1    13.    The composition of claim 1, further comprising at least one of:  
2       an enzyme;  
3       a binder;  
4       a lubricant; and  
5       a fragrance.

1    14.    The composition of claim 13, wherein the surfactant is chosen from at least one  
2    of: alklyated, sulfonated diphenyl oxide; disodium salt; sodium lauryl sulphate; and alkyl  
3    benzene sulfonates.

1    15.    The composition of claim 13, wherein the surfactant comprises a mixture of a  
2    C<sub>12-20</sub> ethoxylated alcohol and a sodium C<sub>14-16</sub> olefin sulfonate.

1    16.    The composition of claim 13, wherein the surfactant comprises approximately  
2    0.1% to approximately 5% by weight of the composition.

1    17.    The composition of claim 13, wherein the binder comprises up to approximately  
2    20% by weight of the composition.

1    18.    The composition of claim 13, wherein the binder is chosen from at least one of:  
2    polyethylene glycol, sorbitol, maltodextrin, and sugars.

1    19.    The composition of claim 13, wherein the lubricant comprises up to  
2    approximately 10% by weight of the composition.

1    20.    The composition of claim 13, wherein the lubricant is chosen from at least one of:  
2    sodium benzoate, stearates, mineral oil, silicates, and algenic acid.

1    21.    The composition of claim 13, wherein the enzyme comprises from approximately  
2    0.1% to approximately 1.25% by weight of the composition.

1    22.    The composition of claim 13, wherein the enzyme is chosen from at least one of: a  
2    cellulose, a protease, and a lipase.

1    23.    The composition of claim 13, wherein the enzyme is chosen from at least one of:  
2    endo-cellulose, exo-cellulose, cellobiase, xylanese, pentosanose, polygalacturonese, and  
3    beta-glucanase.

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1    24.    A method of producing a toilet bowl cleaner, comprising:  
2                 blending starting materials; and  
3                 forming an effervescent tablet from the starting materials.

1    25.    The method of claim 24, wherein the starting materials comprise:  
2                 a surfactant; and  
3                 an effervescent system including an acid,  
4                 wherein the starting materials have a pH from approximately 1.6 to approximately  
5                 2.2.

1    26.    The method of claim 24, wherein the starting materials further comprise at least  
2         one of:  
3                 a binder; and  
4                 a fragrance.

1    27.    The method of claim 24, further comprising blending a lubricant into the starting  
2         materials.

1    28.    The method of claim 24, further comprising packaging the tablet in a moisture-  
2         resistant pouch.

1    29.    The method of producing a toilet bowl cleaner, comprising:  
2       blending starting materials comprising  
3              a surfactant and  
4              an effervescent system including an acid,  
5              wherein the starting materials have a pH from approximately 1.6 to  
6              approximately 2.2;  
7       blending a lubricant into the blended starting materials;  
8       compacting and milling the blended lubricant and starting materials into granules;  
9       classifying the granules by size; and  
10      packaging the granules of a desired size into moisture-resistant packages.

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